

FEASIBILITY STUDY

Town of Hope Mills

SR 1115 (Golfview Road) from SR 1112 (Rockfish Road)
to NC 59 (Main Street) in Hope Mills

Cumberland County

Division 6

FS-0106B

U-4710



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Prepared by the
Program Development Branch
Division of Highways
N. C. Department of Transportation

A handwritten signature in blue ink, reading "Nicole M. Hackler".

Nicole M. Hackler
Feasibility Studies Engineer

A handwritten signature in black ink, reading "Derrick W. Lewis".

Derrick W. Lewis, P.E.
Feasibility Studies Engineer

6/4/02
Date

**SR 1115 (Golfview Road) from SR 1112 (Rockfish Road)
to NC 59 (Main Street) in Hope Mills
Cumberland County
FS-0106B**

I. General Description

This feasibility study describes upgrading SR 1115 (Golfview Road) from SR 1112 (Rockfish Road) to NC 59 (Main Street) in Hope Mills, a distance of approximately 0.6 miles. The project location is shown on Figure 1. As part of this study three different cross-sections were investigated. The details of each are as follows:

- ◆ **ALTERNATIVE #1:** Three-lane curb and gutter section on a combination of 100- and 120-feet of right-of-way.
- ◆ **ALTERNATIVE #2:** Five-lane curb and gutter section on a combination of 100- and 120-feet of right-of-way.
- ◆ **ALTERNATIVE #3:** Four-lane divided curb and gutter section on a combination of 100- and 120-feet of right-of-way.

This study is the initial step in the planning and design process for this project and is not the product of exhaustive environmental or design investigations. The purpose of this study is to describe the proposed project including costs, and to identify potential problems that may require consideration in the planning and design phases.

II. Background

The purpose of this project is to increase the traffic carrying capacity and safety of SR 1115 (Golfview Road), as well as provide improved multilane access to both NC 59 (Main Street) and SR 1112 (Rockfish Road) in Hope Mills.

SR 1115 (Golfview Road) is designated as an urban local road in the North Carolina Statewide Functional Classification System. SR 1115 is currently a two-lane shoulder section, 26 feet wide from edge of pavement to edge of pavement. The development along this road is a combination of residential, municipal (fire station, public library, town hall and a recreational park which is

encircled by a memorial bikeway), and some commercial development at the intersection of NC 59 (Main Street).

There are two existing traffic signals on Golfview Road, one at the intersection of Rockfish Road (SR 1112) and the other at the intersection of NC 59 (Main Street).

The current year Average Daily Traffic (ADT) along SR 1115 (Golfview Road) within the project limits is 9100 vehicles per day (vpd). For the design year 2025, the estimated traffic volumes on SR 1115 will be 16,000 vpd. Truck traffic is estimated to make up approximately two percent of the daily traffic.

Currently the intersections along this section of Golfview Road operate at Level of Service (LOS) "B". If no improvements are made, Golfview Road at NC 59 (Main Street) will be operating at an LOS "E" in the design year 2025, and Golfview Road at Rockfish Road (SR 1112) will be operating at an LOS "F". In order to further improve traffic operations, additional intersection improvements have been included in this project.

During the three-year period from January 1998 to December of 2000, there were 25 accidents reported within the project limits. There were 8 injuries reported as a result of these incidents with no fatalities. The accident rate for this short 0.6-mile roadway is 441.20 accidents per 100 million vehicle miles of travel (acc/100mvm). However, due to the very short section and high number of accidents, a comparison with a statewide accident rate is not valid.

III. Description of Project

It is proposed to widen SR-1115 (Golfview Road) from SR-1112 (Rockfish Road) to NC 59 (Main Street), a distance of 0.6 miles. The project location is shown on Figure 1. Three cross-sections were proposed for this project and are as follows:

ALTERNATIVE #1: Three-lane curb and gutter section, 40' wide face to face of curbs, with 10-foot berms. The proposed right of way width for this section is a combination of 100- and 120-feet, which will permit future widening along Golfview Road in order to accommodate traffic volumes as they increase.

With this proposed cross-section, it is anticipated there will be 0 (zero) residences and 0 (zero) businesses relocated due to this project. The total cost of this alternative, including construction and right-of-way, is estimated to be \$ 2,600,000.

Construction.....	\$ 1,400,000
Right-of-Way.....	\$ 1,200,000

Total Project Cost (Alternative 1).....	\$ 2,600,000
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ALTERNATIVE #2: Five-lane curb and gutter section, 64' wide face to face of curbs, with 10-foot berms. The proposed right of way width for this section is a combination of 100- and 120-feet.

With this proposed cross-section, it is anticipated there will be 0 (zero) residences and 0 (zero) businesses relocated due to this project. The total cost of this alternative, including construction and right-of way, is estimated to be \$ 3,400,000.

Construction.....	\$ 2,200,000
Right-of-Way.....	\$ 1,200,000

Total Project Cost (Alternative 2).....\$ 3,400,000

ALTERNATIVE #3: Four-lane divided curb and gutter section, 70-foot wide face to face of curbs, with an 18-foot raised grassed median and 10-foot berms. The proposed right of way width for this section is a combination of 100- and 120-feet.

With this proposed cross-section, it is anticipated there will be 0 (zero) residences and 0 (zero) businesses relocated due to this project. The total cost of this alternative, including construction and right-of way, is estimated to be \$ 4,000,000.

Construction.....	\$ 2,800,000
Right-of-Way.....	\$ 1,200,000

Total Project Cost (Alternative 3).....\$ 4,000,000

In addition to the alternatives listed above, it was necessary to include road improvements on NC 59 (Main Street) at the intersection of Golfview Road. These improvements include widening the existing four-lane section with right turn lanes to a five-lane curb and gutter section, 64-feet wide face to face of curbs with 10-foot berms, and right turn lanes in each direction. This section would extend to the east and west of the intersection at Golfview Road in order to accommodate the dual left turn lanes from Golfview Road onto NC 59. The costs associated with these improvements to NC 59 were estimated to be \$ 1,700,000.

Construction.....	\$ 700,000
Right-of-Way.....	\$ 1,000,000

Total Cost (NC 59 Improvements).....\$ 1,700,000

It should also be noted that two bicycle alternatives were investigated for this project. The first was a "Share the Road" alternative, which includes two additional feet of unmarked pavement on each side of the roadway. The cost for this option would add an additional \$100,000 to the project cost.

The second bicycle alternative investigated was a four-foot marked bicycle lane on each side of the roadway. This option would add an additional \$200,000 to the project cost.

IV. Recommendations

ALTERNATIVE #1: The analysis for the three-lane curb and gutter section showed it would not be able to accommodate the projected 2025 design year volumes with an acceptable level of service. For this reason, Alternative #1 was not selected as the recommended option.

ALTERNATIVE #2 & ALTERNATIVE #3: It was found that both the five-lane curb and gutter section (Alternative #2) and the four-lane divided curb and gutter section (Alternative #3) would be able to accommodate design year 2025 volumes. However, five-lane sections tend to promote strip development and indiscriminate left turn movements, while four-lane divided sections minimize strip development, prevent indiscriminate left turn movements and allow pedestrian refuge if needed. ***Because of these factors, Alternative #3 would be the preferred option for the proposed SR 1115 (Golfview Road) widening.***

The total cost of the preferred alternative, including the proposed widening of Golfview Road, intersection improvements on NC 59 (Main Street) and a "Share the Road" bicycle configuration is \$ 5,800,000.

V. Additional Comments

A detailed environmental study was not conducted for this feasibility study. However, existing information available for this area has been screened for environmental and historic concerns, and no impacts to historic properties or wetlands are anticipated.

Based on maps at the Department of Environment, Health & Natural Resources and Natural Heritage Section, impacts to threatened or endangered species are not anticipated in the project area.

It should be noted that due to the extensive public facilities within the limits of this project, conflicts with Section 4F are anticipated.

FS-0106 B
SR 1115 (GOLFVIEW ROAD)
FROM
SR 1112 (ROCKFISH ROAD)
TO
NC 59 (MAIN STREET) IN
HOPE MILLS
1"=800'
FIGURE 1



PROJECT LIMITS

